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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,928	07/10/2003	Tue Nguyen	SIM026C	3947
23910	7590	04/20/2005	EXAMINER	
FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111			STEVENSON, ANDRE C	
			ART UNIT	PAPER NUMBER
			2812	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H-A

Office Action Summary

Application No.

10/617,928

Applicant(s)

NGUYEN ET AL.

Examiner

Andre' C. Stevenson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) 11-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 24, 25 is/are rejected.
- 7) ☒ Claim(s) 10, 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.


Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


LYNNE A. GURLEY

PRIMARY PATENT EXAMINER

TC 2800, AU 2812

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Detailed Action

Election/Restrictions

Applicant's election of Group I, claims 1-10 and 24-26 in the reply filed on January 18, 2005 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 11-23 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Election was made **without** traverse in the reply filed on January 18, 2005.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 24 is rejected under 35 U.S.C. 102(e) as being unpatentable by Pang et al. (U.S.

Pat. No.6,517,634 , Patented 02/11/03, Provisional File Date 02/28/00).

Pang shows, in figures 1-6 and corresponding text, a semiconductor processing chamber with al lid assembly that movably coupled to the chamber with respect to **claim #24**, a semiconductor processing system, comprising (**fig. 1; column 4, lines 6-16**): a chamber (**item 100**), adapted to process a wafer (**item 101**), the chamber having an opening to facilitate access to the interior of the chamber (**column 2, lines 38-52; column 4, lines 17-29; column 5, lines 15-29**); and a lid coupled to the chamber opening, the lid having an open position and a closed position, the open and closed positions being moved horizontally in a substantially parallel manner relative to the opening; and an actuator coupled to the lid to move the lid between the closed position and the open position (**column 7, lines 52-67; column 8, lines 1-4**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

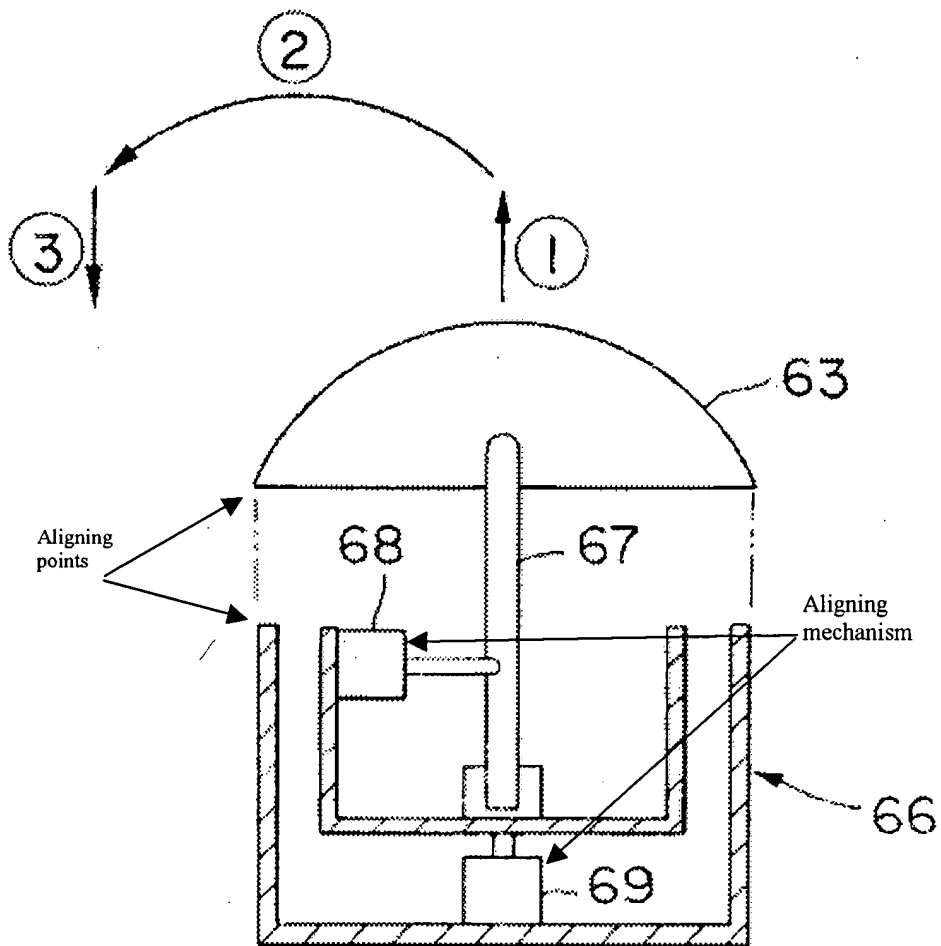
Claim #25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pang et al. (U.S. Pat. No.6,517,634 , Patented 02/11/03, Provisional File Date 02/28/00), as applied to claim #24 above, and further in view of Kamikawa et al. (U.S. Pat. No.6,413,355 B1, Patented 07/02/02, Filed 09/24/97).

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Pang substantially shows a semiconductor processing chamber, as shown in the claim listed above.

Pang fails to show, with respect to claim #25, a system, further comprising a floating pivot to automatically align the lid to the body of the chamber.

Pertaining to claim #25, Kamikawa teaches a system, further comprising a floating pivot to automatically align the lid to the body of the chamber (**column 8, lines 19-34**). The examiner recognizes that Kamikawa does not explicitly mention that the floating pivot automatically aligns the lid to the body. However, the examiner takes the position that the projection of fig #8, along with recited text above, shows that the lid is indeed automatically aligned with the body; See figure below.

**FIG. 8**

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to include, a system, further comprising a floating pivot to automatically align the lid to the body of the chamber, into the method of Pang, as taught by Kamikawa, with the motivation that a pivot that automatically align itself would insure a air tight closing before any further operations.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 rejected under 35 U.S.C. 103(a) as being unpatentable over by Pang et al. (U.S. Pat. No.6,517,634 , Patented 02/11/03, Provisional File Date 02/28/00), and in view of by Kamikawa et al. (U.S. Pat. No.6,413,355 B1, Patented 07/02/02, Filed 09/24/97).

Pang shows, in figures 1-6 and corresponding text, a semiconductor processing chamber with a lid assembly that movably coupled to the chamber, with respect to **claim #1**, a semiconductor processing system, comprising (**fig. 1; column 4, lines 6-16**); a chamber (**item 100**) adapted to process a wafer (**item 101**), the chamber having an opening to facilitate access to the interior of the chamber (**column 2, lines 38-52; column 4, lines 17-29; column 5, lines 15-29**); a lid coupled to the chamber opening, the lid having an open position and a closed position; an actuator coupled to the lid to move the lid between the closed position and the open position (**column 7, lines 52-67; column 8, lines 1-4**).

Pang fails to show, with respect to **claim #1**, a floating pivot coupled to the lid and the actuator to align the lid with the opening when the lid closes. Pang fails to show, with respect to

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claim #2, a system, further comprising a fixed pivot coupled to the lid and the actuator. With respect to **claim #3**, Pang fail to show, a system, further comprising a guide link coupled to the fixed pivot. Pang fails to show, with respect to **claim #4**, a system, further comprising a load link coupled to the floating pivot. With respect to **claim #5**, Pang fails to show, a system, further comprising a guide shaft rotatably coupled to the load link. Pang also fails to show, with respect to **claim #6**, a system, further comprising a drive pivot positioned at one end of the load link. Pang fails to show, with respect to **claim #7**, a system, further comprising a rod extending from the actuator coupled to the drive pivot to move the lid. With respect to **claim #8**, Pang fails to show, a system, further comprising a support bracket coupled to the actuator and the chamber body.

Kamikawa teaches, with respect to **claim #1**, a floating pivot coupled to the lid and the actuator to align the lid with the opening when the lid closes (**fig. 7&8; column 8, lines 19-34**). *Pertaining to claim #2*, Kamikawa teaches a system further comprising a fixed pivot coupled to the lid and the actuator (**fig. 7&8; column 8, lines 19-34**). *Pertaining to claim #3*, Kamikawa teaches, a system, further comprising a guide link coupled to the fixed pivot (**fig. 7&8; column 8, lines 19-34**). *Pertaining to claim #4*, Kamikawa teaches a system, further comprising a load link coupled to the floating pivot (**fig. 7&8; column 8, lines 19-34**). *Pertaining to claim #5*, Kamikawa teaches a system, further comprising a guide shaft rotatably coupled to the load link (**fig. 7&8; column 8, lines 19-34**). *Pertaining to claim #6*, Kamikawa teaches a system, further comprising a drive pivot positioned at one end of the load link (**fig. 7&8; column 8, lines 19-34**). *Pertaining to claim #7*, Kamikawa teaches a system, further comprising a rod extending

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from the actuator coupled to the drive pivot to move the lid (**fig. 7&8; column 8, lines 19-34**).

Pertaining to claim #8, Kamikawa teaches a system, further comprising a support bracket coupled to the actuator and the chamber body (**fig. 7&8; column 8, lines 19-34**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, with respect to **claim #1-8**, to include, a floating pivot coupled to the lid and the actuator to align the lid with the opening when the lid closes, a fixed pivot coupled to the lid and the actuator, a guide link coupled to the fixed pivot, a load link coupled to the floating pivot, a guide shaft rotatably coupled to the load link, a drive pivot positioned at one end of the load link, the actuator coupled to the drive pivot to move the lid and a support bracket coupled to the actuator and the chamber body, into the method of Pang, as taught by Kamikawa, with the motivation that these inclusions would increase the probability that the lid would align and close securely in a repeating manner.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim #9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pang et al. (U.S. Pat. No.6,517,634 , Patented 02/11/03, Provisional File Date 02/28/00), as applied to claims #1-8 above, and further in view of Lei et al. (U.S. Pat. No.6,050,446, Patented 04/18/00, Filed 07/11/97).

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Pang substantially shows a semiconductor processing chamber, as shown in the claim listed above.

Pang fails to show, with respect to **claim #9**, system wherein the actuator is air actuated or hydraulically actuated.

Lei teaches, in a similar manner, a semiconductor processing system comprising of chamber with a lid operated by an actuator.

Lei teaches, *pertaining to claim #9*, system wherein the actuator is air actuated or hydraulically actuated (**column 7, lines 5-22**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include, a system wherein the actuator is air actuated or hydraulically actuated, into the method of Pang, as taught by Lei, with the motivation that the inclusion of an hydraulically operated lid would remove human intervention and thus reduce the probability of contamination.

Allowable Subject Matter

Claim #10 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim #10 allowable subject matter, pending further search.

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- ✓ Where the actuator is motorized.

Claim #26

- ✓ A bearing positioned between the first and second portions of the bearing; and a self-centering spring coupled to the perimeter of the bearing

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre' Stevenson whose telephone number is (571) 272 1683. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael S. Lebentritt, can be reached on (571) 272 1873. The fax phone number for the organization where this application or proceeding is assigned is (703) 308 7724.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 0956. Also, the proceeding numbers can be used to fax information through the Right Fax system;

(703) 872-9306

Andre' Stevenson

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03/15/05



LYNNE A. GURLEY
PRIMARY PATENT EXAMINER
TC 2800, AU 2812